

ENGLISH HERITAGE

PRACTICAL BUILDING CONSERVATION

CONCRETE

Series Editors: Bill Martin and Chris Wood

Volume Editor: David Odgers

CONTENTS

The Practical Building Conservation Series	v
About This Book	vii
Using These Books.....	viii
THE DEVELOPMENT & USE OF CONCRETE	1
History of Design and Use	3
DETERIORATION & DAMAGE	71
Structural Problems.....	73
Inherent Problems	81
Environmental Problems	99
Other Causes of Deterioration.....	102
ASSESSMENT	105
Understanding the Building and Its Condition	107
TREATMENT & REPAIR	145
Strategies for Repair.....	147
Treatment.....	153
Repair.....	166
CASE STUDIES	199
1: Using Traditional Repair Materials	201
2: Using Proprietary Materials	211
3: Combining Traditional and Innovative Techniques	217
4: Large-scale Repairs to Mass Concrete	227
5: Cathodic Protection	235
6: Reinforced Concrete in a Marine Environment.....	241
7: Repair Using Pre-Cast Panels	253
8: Repairing Mosaic Finishes.....	261

CARE & MAINTENANCE.....	267
GLOSSARY.....	273
INDEX.....	291
ACKNOWLEDGEMENTS & PICTURE CREDITS.....	306
Acknowledgements.....	306
Picture Credits	307